What is claimed is:

1. A method for reversing blood flow in a cerebral artery, comprising the steps of:

locating a first constricting member in the right brachiocephalic artery upstream of the right common carotid artery;

locating a second constricting member in the aorta downstream of the left common carotid artery;

expanding the first constricting member to at least partially obstruct the right brachiocephalic artery; and

expanding the second constricting member to at least partially obstruct the aorta.

2. The method of claim 1, wherein blood flow is augmented in the left common carotid artery and left subclavian artery, and is reversed in the right common carotid artery.

3. The method of claim 1, wherein blood flow is reversed in the right internal carotid artery.

4. The method of claim 1, wherein blood flow is reversed in the right external carotid artery.

5. The method of claim 1, wherein blood flow is reversed in the right vertebral artery.

6. The method of claim 1, further comprising the steps of advancing an interventional catheter into a right cerebral artery and performing a procedure on a lesion in the right cerebral artery.

7. The method of claim 6, wherein the right cerebral artery is selected from the group consisting of the right common carotid artery, right internal carotid artery, right external carotid artery, right vertebral artery, carotid siphon, MCA, and ACA.

8. The method of claim 6, wherein the interventional catheter is an angioplasty catheter.

9. The method of claim 6, wherein the interventional catheter is an atherectomy catheter.

10. The method of claim 6, wherein the interventional catheter is a stent delivery catheter.

11. The method of claim 1, further comprising the step of deploying a filter in the right subclavian artery to capture embolic debris.

12. A method for reversing blood flow in a cerebral artery, comprising the steps of:

locating a first constricting member in the right subclavian artery upstream of the right vertebral artery;

locating a second constricting member in the aorta downstream of the left common carotid artery;

expanding the first constricting member to at least partially obstruct the right subclavian artery; and

expanding the second constricting member to at least partially obstruct the aorta.

13. The method of claim 12, wherein blood flow is augmented in the right common carotid artery, left common carotid artery, and left subclavian artery, and is reversed in the right vertebral artery.

14. The method of claim 12, further comprising the steps of advancing an interventional catheter into the right vertebral artery and performing a procedure on a lesion in the right vertebral artery.

15. The method of claim 14, wherein the interventional catheter is an angioplasty catheter.

16. The method of claim 14, wherein the interventional catheter is an atherectomy catheter.

17. The method of claim 14, wherein the interventional catheter is a stent delivery catheter.

18. The method of claim 12, further comprising the step of deploying a filter in the right subclavian artery to capture embolic debris.

19. A method for reversing blood flow in a cerebral artery, comprising the steps of:

locating a first constricting member in the left subclavian artery upstream of the left vertebral artery;

locating a second constricting member in the aorta downstream of the right brachiocephalic artery;

expanding the first constricting member to at least partially obstruct the left subclavian artery; and

expanding the second constricting member to at least partially obstruct the aorta.

20. The method of claim 19, wherein blood flow is augmented in the right brachiocephalic artery and left common carotid artery, and is reversed in the left vertebral artery.

21. The method of claim 19, further comprising the steps of advancing an interventional catheter into the left vertebral artery and performing a procedure on a lesion in the left vertebral artery.

22. The method of claim 21, wherein the interventional catheter is an angioplasty catheter.

23. The method of claim 21, wherein the interventional catheter is an atherectomy catheter.

24. The method of claim 21, wherein the interventional catheter is a stent delivery catheter.

25. The method of claim 19, further comprising the step of deploying a filter in the left subclavian artery to capture embolic debris.

26. A method for reversing blood flow in a cerebral artery, comprising the steps of:

locating a first constricting member in the left common carotid artery;

locating a second constricting member in the aorta downstream of the left brachiocephalic artery;

expanding the first constricting member to at least partially obstruct the left common carotid artery; and

expanding the second constricting member to at least partially obstruct the aorta.

27. The method of claim 26, wherein blood flow is reversed in the left internal carotid artery.

28. The method of claim 26, wherein blood flow is reversed in the left external carotid artery.

29. The method of claim 26, further comprising the steps of advancing an interventional catheter into a left cerebral artery and performing a procedure on a lesion in the left cerebral artery.

30. The method of claim 29, wherein the right cerebral artery is selected from the group consisting of the right common carotid artery, right internal

carotid artery, right external carotid artery, right vertebral artery, carotid siphon, MCA, and ACA.

31. The method of claim 29, wherein the interventional catheter is an angioplasty catheter.

32. The method of claim 29, wherein the interventional catheter is an atherectomy catheter.

33. The method of claim 29, wherein the interventional catheter is a stent delivery catheter.

34. The method of claim 1, wherein the first and second constricting members are inserted through a femoral artery.

35. The method of claim 1, wherein the first constricting member is inserted through a subclavian artery.

36. The method of claim 1, wherein the first constricting member is inserted through a subclavian artery, and the second constricting member is inserted through a femoral artery.

37. The method of claim 12, wherein the first and second constricting members are inserted through a femoral artery.

38. The method of claim 12, wherein the first constricting member is inserted through a subclavian artery.

39. The method of claim 12, wherein the first constricting member is inserted through a subclavian artery, and the second constricting member is inserted through a femoral artery.

40. The method of claim 19, wherein the first and second constricting members are inserted through a femoral artery.

41. The method of claim 19, wherein the first constricting member is inserted through a subclavian artery.

42. The method of claim 19, wherein the first constricting member is inserted through a subclavian artery, and the second constricting member is inserted through a femoral artery.

43. The method of claim 26, wherein the first and second constricting members are inserted through a femoral artery.

44. The method of claim 26, wherein the first constricting member is inserted through a subclavian artery.

45. The method of claim 26, wherein the first constricting member is inserted through a subclavian artery, and the second constricting member is inserted through a femoral artery.

46. The method of claim 26, further comprising the step of deploying a filter in at least one of the left subclavian artery or the left external carotid artery to capture embolic debris.

47. A medical device for reversing blood flow in a cerebral artery, comprising:

a first elongate member having a proximal end and a distal end;

a first expandable constrictor on the distal end of the first elongate member;

a second elongate member having a proximal end and a distal end, the second elongate member adapted to extend through the first elongate member;

a second expandable constrictor on the distal end of the second elongate member; and

an interventional instrument that extends through the second constrictor to access a lesion in a cerebral artery.

48. The medical device of claim 47, wherein the first elongate member further comprises a manometer distal the first expandable constrictor.

49. The medical device of claim 47, wherein the first elongate member further comprises a manometer proximal the first expandable constrictor.

50. The medical device of claim 47, wherein the second elongate member further comprises a manometer distal the second expandable constrictor.

51. The medical device of claim 47, wherein the second elongate member further comprises a manometer proximal the second expandable constrictor.

52. The medical device of claim 47, wherein the first and second expandable constrictors are balloons.

53. A method for reversing blood flow in a cerebral artery, comprising the steps of:

locating a first constricting member in the right common carotid artery;

locating a second constricting member in the aorta downstream of the left common carotid artery;

expanding the first constricting member to at least partially obstruct the right common carotid artery; and

expanding the second constricting member to at least partially obstruct the aorta.

54. The method of claim 53, wherein blood flow is reversed in the right internal carotid artery.

55. The method of claim 53, further comprising the step of deploying a filter in the right external carotid artery to capture embolic debris.

56. The method of claim 53, further comprising the steps of advancing an interventional catheter into the right internal carotid artery and performing a procedure on a lesion in the right internal carotid artery.

57. A method for reversing blood flow in a cerebral artery, comprising the steps of:

locating a first constricting member in the left common carotid artery;

locating a second constricting member in the aorta downstream of the right brachiocephalic artery;

expanding the first constricting member to at least partially obstruct the left common carotid artery; and

expanding the second constricting member to at least partially obstruct the aorta.

58. The method of claim 57, wherein blood flow is reversed in the left internal carotid artery.

59. The method of claim 57, further comprising the step of deploying a filter in the left external carotid artery to capture embolic debris.

60. The method of claim 57, further comprising the steps of advancing an interventional catheter into the left internal carotid artery and performing a procedure on a lesion in the left internal carotid artery.